

1. In a wireless communication system having a plurality of
2 antennas each directed to one of a plurality of coverage areas, a method
comprising:
3 receiving a first signal from a first sector;
receiving a second signal from a second sector;
4
5 delaying the second signal to form a delayed second signal; and
6 summing the delayed second signal and the first signal.
2. The method as in claim 1, further comprising:
2 splitting the first signal into multiple parts; and
splitting the second signal into multiple parts.
3. The method as in claim 1, wherein summing comprises:
2 summing one of the multiple parts of the first signal with one of
the multiple parts of the second signal to form a first summation signal.
4. The method as in claim 3, wherein summing further
2 comprises:
summing a second of the multiple parts of the first signal with a
3
4 second of the multiple parts of the second signal to form a second
summation signal
5. The method as in claim 4, further comprising:
2 generating an In-phase component and a Quadrature component
of the first summation signal; and
3
4 generating an In-phase component and a Quadrature component
of the second summation signal.
6. The method as in claim 5, further comprising:
2 generating a despreading code;
despreading the In-phase component and the Quadrature
3
4 component of the first summation signal with the despreading code;

offsetting the despreading code by a first phase delay to form a
delayed despreading code; and
despreading the In-phase component and the Quadrature
component of the second summation signal with the delayed
despreading code.

7. A wireless infrastructure element, comprising:
means for receiving a first signal from a first sector;
means for receiving a second signal from a second sector;
means for delaying the second signal to form a delayed second
signal; and
means for summing the delayed second signal and the first signal.

8. A wireless infrastructure element, comprising:
a plurality of antenna elements, each antenna element associated
with a coverage area of a wireless communication system;
a plurality of receive amplifiers, each receive amplifier coupled to
one of the plurality of antenna elements;
a switch matrix coupled to the plurality of receive antennas; and
a plurality of summation networks coupled to the switch matrix
and adapted to receive information from each of the plurality of receive
amplifiers.